Remarks

The present amendment responds to the Official Action dated March 2, 2006. That Action rejected claim 3 under 35 U.S.C. §112, second paragraph, as indefinite. The specification was objected to and the Examiner requested that the status of copending application 08/959,794 be provided therein. It appears this objection was a typographical error as this update was provided in the Amendment filed February 8, 2006. Claims 1, 4, 21, 23, 27 and 28 were rejected under 35 U.S.C. §102(b) based on Baran et al. U.S. Patent No. 4,771,425 (Baran). Claims 3 and 24 were rejected under 35 U.S.C. §103(a) based on Baran in view of Williams et al. U.S. Patent No. 5,883,891 (Williams). Claims 2, 5, 6, 19, 22, 29, 30 and 31 were rejected under 35 U.S.C. §103(a) based on Baran in view of Gordon U.S. Patent No. 5,608,786 (Gordon). Claim 26 was rejected under 35 U.S.C. § 103(a) based on Baran. Claim 20 was rejected under 35 U.S.C. §103(a) based on Rahman et al. U.S. Patent No. 5,274,635 (Rahman) in view of Gordon. Claim 25 was objected to as being dependent upon a rejected base claim, but was indicated to be allowable if rewritten in independent form including all limitations of the base claim and any intervening claims.

Claim 3 has been amended to be more clear and distinct. Claim 25 has been rewritten in independent form. Claims 7-18 have been previously cancelled without prejudice. Claims 1-6 and 19-31 are presently pending.

Section 112 Second Paragraph Rejection of Claim 3

Claim 3 was rejected because the Examiner believed the phrase "said termination equipment" lacked antecedent basis. While applicant believes the term finds antecedent basis in

"first termination equipment" and "second termination equipment", in the interest of clarity and advancing prosecution, claim 3 has been amended to read "each of said first and second termination equipment". Claim 3 has been amended to be more clear.

Specification Objection

This objection was addressed by the amendment filed February 6, 2006.

The Art Rejections

As addressed in greater detail below, Baran, Gordon, Williams and Rahman do not support the Official Action's reading of them and the rejections based thereupon should be reconsidered and withdrawn. Further, the Applicant does not acquiesce in the analysis of Baran, Gordon, Williams and Rahman made by the Official Action and respectfully traverses the Official Action's analysis underlying its rejections.

Claims 1, 4, 21, 23, 27 and 28 were rejected under 35 U.S.C. §102(b) based on Baran, and claim 26 was rejected under 35 U.S.C. § 103(a) over Baran. Baran describes an apparatus to multiplex standardized channels into a single channel wherein voice or data are packetized into independently addressable packets. Baran, Abstract. Far from addressing techniques for Internet telephony as taught by the present invention, Baran addresses techniques for more efficient utilization of a trunk line such as a DS-1 or T-1 line. While Baran's Fig. 3B shows "the standard T-PCM frame of 24 serial channels each carrying an 8-bit sample," col. 6, lines 59-61, Baran describes a different approach in which "the entire frame forms a packet" in which

multiple bits "are provided for packet address information" and the "information in each packet is directed to a single destination." (emphasis added) Baran, col. 6, line 66 – col. 7, line 11. An example of switched routing at col. 5, lines 58-60 of Baran recites that "terminal 64 may send successive packets of information to the computer 66 through one of two routes." Claim 1 recites packet gateways arranged to "multiplex voice telephone calls from said first plurality of telephone sets to said second plurality of telephone sets ... into a single packet." Claim 1 further requires "establishing a **single** transport level connection which is **maintained so long as voice calls are being made from the first and second locations**". It is noted that "there are a plurality of telephone sets in" both the first location and the second location so that claim 1 clearly addresses routing to multiple destinations. Claim 21, as previously presented, recites, "a controller controlling the network card to establish a transport level connection over the Internet, the controller operating to multiplex voice information from the plurality of voice calls into a single data packet onto the transport level connection, and to maintain the transport level connection so long as voice information is received from one of the plurality of voice calls through the input." (emphasis added)

The Official Action at paragraph 8 again appears to have ignored Applicant's previous arguments and continues to rely on col. 6, line 59 – col. 7, line 3 and Fig. 3A of Baran. The Amendments dated February 8, 2006 and August 25, 2005 specifically address this cited portion of Baran. Rather than countering the analysis of Baran made in these previous amendments, the Examiner relies on the same portion of text for the same suggestion, thus, failing to move this application forward as required under the M.P.E.P.

At paragraph 8, the Official Action continues to rely on the cited portion of text as purportedly suggesting that a number of telephone calls are multiplexed into a single packet. Applicant respectfully disagrees. The relied upon text describes how a standard T-PCM frame of 24 serial channels each carrying an 8-bit sample can be allocated to form "a single packet." Although a single packet is illustrated in Fig. 3A as the Examiner suggests, the information carried in the single packet appears to relate to the same call. See, col. 7, lines 6-8 where it states "The information in each packet is directed to a singe destination and is independent of the frame to which it is assigned." Furthermore, at col. 7, lines 21-22, Baran states that "the packet contains the destination address." See also, col. 3, lines 18-22 where it discusses a preferred embodiment employing "an independently addressable packet." Unlike the present invention, Baran's single packet containing a single destination address can only terminate at one destination.

In stark contrast to Fig. 3A of Baran, Fig. 3 of the present specification shows multiple voice calls multiplexed into a single packet 300. Each voice call is represented by a data block within the packet. For example, header 302 and data block 304 carrying payload 1 corresponds to voice call 1, utilizing one channel identifier. The header 302 and data block 304 carrying payload 2 corresponds to voice call 2, utilizing a second channel identifier. Baran does not disclose and does not make obvious "voice telephone calls ... multiplexed into a single packet" as presently claimed in claim 1. Baran does not disclose and does not make obvious, "multiplexing voice information from the plurality of voice calls into one data packet onto the transport level connection," as presently claimed in claim 21.

Although Baran discloses trunk multiplexor 18 for switching a voice channel to a packet and vice versa, the trunk multiplexor 18 address an entirely different problem of distributing packets across various trunks. There simply is no disclosure that Baran's plurality of telephone sets 56, 58, 60, and 62 have portions of their "voice telephone calls ... multiplexed into a single packet" as presently claimed in claim 1.

The Official Action relies on Baran at col. 6, line 59-col. 7, line 3 and Fig. 3A as purportedly suggesting maintaining a transport level connection so long as voice calls are being made between the first and second location with information from a number of voice telephone calls as claimed. Applicant respectfully disagrees and notes that this cited text has been addressed above. Baran does not disclose and does not make obvious maintaining a transport level connection "so long as voice calls are being made between the first and second locations," as presently claimed in claims 1. See also claim 19, as presently amended, where it recites, "the same transport level connection is maintained so long as voice information is received from one of the different originators." See also claim 21, as presently amended, where it recites a controller operating "to maintain the transport level connection so long as voice information is received from one of the plurality of voice calls through the input." This claim feature advantageously reduces the overhead and increases effective payload on a per voice call basis by establishing a single transport level connection to carry multiple voice calls with multiple destinations. See specification, col. 3, lines 39-44. The cited portion of text and Baran's disclosure, in general, do not address a transport level connection and, thus, cannot address

maintaining the transport level connection as long as voice information from a plurality of calls is received as presently claimed.

Baran does not appear to discuss "establishing a **single** transport level connection **which is maintained so long as voice calls are being made between** [the first and second plurality of telephone sets at] **the first and second locations**" (emphasis added). As noted at page 2, lines 20-page 3, line 2, typical prior Internet call protocols tended to employ protocols to establish and tear down a new Internet connection with each individual call.

Claims 3 and 24 were rejected under 35U.S.C. § 102 (a) based on Baran in view of Williams. As an initial matter, Williams does not cure the deficiencies of Baran as a reference and does not provide a basis for modifying Bran in the manner suggested. Further, the present application claims the benefit of the provisional application filed November 26, 1996 and it is not admitted that Williams is in fact "prior" art.

Williams is entitled "Method and Apparatus for Increased Quality of Voice Transmission Over the Internet." It specifically addresses the transmission of "extra packets of specially computed data along with data representing speech" which "are used at the receiving server to reconstruct any missing or late data packets." Williams, Abstract. The method is said to be "particularly suited to eliminating or reducing delays in networks in which data is sent down multiple diverse paths." Far from teaching "a single transport level connection which is maintained so long as voice calls are being made between first and second locations with information from a number of voice telephone calls directed to different ones of said second plurality of telephone sets multiplexed into a single packet" as in claim 1, it specifically is

directed to solving the problem that its transport layer typically may not be maintained even for the duration of one single call. In this regard, Williams Fig. 1B shows the "sending of data packets by multiple paths". Williams, col. 4, lines 9 and 10. As further discussed at col. 4, lines 38-40, "the voice (message) being sent is broken into a number of packets and each one is sent over a different route." As such, if anything, Williams teaches away from the presently claimed invention and as such is an indicia of nonobviousness rather than obviousness of all the present claims.

Claims 2, 5, 6, 19, 22, 29, 30 and 31 were rejected under 35 U.S.C. §103(a) based on Baran in view of Gordon. Gordon fails to cure the deficiencies of Baran. Since claims 2, 5, and 6 depend from and contain all the limitations of claim 1, claims 2, 5, and 6 distinguish from the references in the same manner as claim 1. Claim 19, as amended, recites "voice information received from different originators at the origination point and exchanged between ones of the gateways is multiplexed at the same transport level connection and in one data packet." (emphasis added). The Official Action again relies on Baran at col. 6, line 59 – col. 7, line 3 and Fig. 3A as purportedly suggesting this feature. As described above, Baran does not teach and does not suggest multiplexing information from different originators in one data packet as claimed in claim 19.

In light of Baran's September 15, 1988 issue date, rather than constituting evidence of obviousness, Baran is suggestive of the nonobviousness of the present invention. While the Official Action suggests that it is obvious to modify Baran based upon Gordon, it appears clear that Gordon in designing a system long after Baran which does not adopt the techniques

suggested to be obvious, but to the contrary, mainly addresses techniques for voicemail, facsimile mail and E-mail rather than voice telephony. See, Gordon, col. 1, lines 5-12, for example. The Official Action relies on Gordon at col. 8, line 62 - col. 9, line 4 as teaching the use of the Internet as a packet network for long distance telephony. The cited portion of text briefly addresses Internet telephony and appears to address an arrangement in which the connection is set up as each call is made and is torn down after each call is completed as discussed in the Background of the Present Invention. See, for example, Gordon col. 9, lines 12-14 which suggest that a packet path is established only as a call is originated rather than being maintained so long as calls are continued.

Unlike Gordon, the present invention multiplexes voice information from different originators at the same transport level connection. Furthermore, the same transport level connection is maintained so long as voice information is received from one of the different originators. Claim 19, as presently amended, recites "voice information received from different originators at the origination point and exchanged between ones of the gateways is multiplexed at the same transport level connection and in one data packet that is sent over the Internet, the same transport level connection is maintained so long as voice information is received from one of the different originators." (emphasis added). Gordon and Baran, taken separately or in combination, do not teach and do not suggest multiplexing voice information at the same transport level connection and in one data packet as presently claimed in claim 19. Furthermore, Gordon and Baran, taken separately or in combination, do not teach and do not suggest maintaining the same transport level connection "so long as voice information is received from one of the different

originators." Even if Gordon were combined with Baran as the Examiner suggests, the terms of the claims will not be met. Claim 19, as amended, therefore defines over the cited art and should be allowed.

Claim 20 was rejected under 35 U.S.C. §103(a) based Rahman in view of Gordon. Rahman addresses a method and apparatus for aligning a digital communication data stream across a cell network. To this end, Rahman receives digital data over a circuit switched communication link and assembles the digital data into a set of outbound communication cells for transfer over the cell network. Rahman, col. 3, lines 41-46. Fig. 3 of Rahman illustrates that digital information carried in each DS0 timeslot is assembled into a corresponding outbound cell to be sent over the cell network. See also Rahman, col. 7, lines 38-41. Each of the assembled outbound cells have a header portion which identifies the target for the communication cell, as well as address information and error checking information. Rahman, col. 7, lines 46-49.

Rahman's disclosure is silent with respect the outbound cells sharing the "same transport level connection" as claimed in presently amended claim 20. However, since the outbound cells are separate, it would appear that each outbound cell would have to have its own transport level connection in order to instruct the far end on how to reassemble cells corresponding to a particular DS0 timeslot. See Rahman, col. 7, lines 51-53.

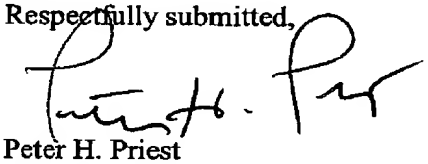
The Official Action relies on Gordon as teaching that the Internet could be used as a packet network. Gordon fails to cure the deficiencies of Rahman. Even if Rahman and Gordon were combined as the Examiner suggests, the suggested combination would still fail to meet the terms of claim 20 as presently amended. Rahman and Gordon, taken separately or in

combination, do not teach and do not suggest multiplexing voice information from different originators "at the same transport level connection," as claimed by presently amended claim 20. Therefore, claim 20 defines over the cited art and should be allowed.

Conclusion

All of the presently pending claims, as amended, appearing to define over the applied references, withdrawal of the present rejection and prompt allowance are requested.

Respectfully submitted,



Peter H. Priest
Reg. No. 30,210
Priest & Goldstein, PLLC
5015 Southpark Drive, Suite 230
Durham, NC 27713-7736
(919) 806-1600